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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,092	02/16/2001	Iwao Miyajima	AKI-C052	2721
30132	7590	06/07/2005	EXAMINER	
GEORGE A. LOUD 3137 MOUNT VERNON AVENUE ALEXANDRIA, VA 22305			WINNER, TONY H	
			ART UNIT	PAPER NUMBER
			3611	
DATE MAILED: 06/07/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/763,092

Applicant(s)

MIYAJIMA, IWAO

Examiner

Tony H. Winner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-17, 28 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-17, 28 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Acknowledgment

1. Receipt of the revised appeal brief filed 3/7/05 has been acknowledged and entered. Claims 1-13 and 18-27 have been canceled. Rejection of claim 29 Under 35 USC 112, First Paragraph is still outstanding. Rejection of claims 14, 15, and 28 Under 35 USC 103 for Obviousness is withdrawn in light of the applicants arguments. However, the office has discovered new reference that may be used to reject claims 14, 15, and 28 Under 35 USC 103. The delay in citation of the new grounds of rejection is regretted.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14, 15, and 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 28, the recitation "gum-base particles" is unclear and failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The specification discloses the "gum base" as a "cross-linked". In the chemical art, cross-linked is often referred to as Thermoset which is a common ground up additive in the polymer field and the term "gum base" generally refers to a natural resin material. The specification (page 10 lines 1-9) does not disclosure the "gum base" comprising of any known resin material and therefore, renders the claim indefinite.

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3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 29 is finally rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. The originally filed specification does not support the new recitations that the urethane foam has a density in various ranges from 0.010g/cm³ to 0.500g/cm³. The original specification does not provide any units for the density ranges as disclosed at pages 4 and 5. Consequently appellant may not now urge that these density ranges are the patentable feature of the invention (as argued in the amendment filed August 13, 2002).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14, 15 and 28 (as best understood) are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Yamagiwa ('677) in view of the Japan 106,390 reference (JP '390) and further in view of Scherzer et al. (US. patent 6,329,440 B2).

Yamagiwa discloses a two-wheeled motor vehicle wherein a hollow portion of the frame is filled with an acoustic material or a damping material (col. 6, line 26) such as polyurethane foam (col. 6, line 53). The foam may be introduced at a threaded opening (col. 6, lines 32 and 63). The foam is foamed after it is poured into the frame.

Yamagiwa does not specifically disclose that the foam is introduced into the swing arm section of the vehicle frame. However, JP 1390 teaches a swing arm which is filled with a vibration suppressing material such as gum, sponge or the like (abstract translation). It would have been obvious to modify Yamagiwa by including the foam in the swing arm section of the frame since both Yamagiwa and JP 1390 teach the desirability of adding a damping or vibration suppressing material in a hollow section of a motorcycle frame, and JP '390 specifically teaches the inclusion of such a material in a swing arm to suppress vibrations.

Regarding the recitation of "gum-based particles" (claim 28), it is noted that the term "gum" as translated is considered to be a very broad term and is considered to cover a wide category of materials. Yamagiwa discloses the use of foams including various additives, while JP'390 specifically discloses the use of "vibration suppressing material, such as Gum, sponge or the like" (Abstract translation, emphasis added). At page 9 of the translation of the JP 1390 reference it is disclosed that various materials can be used as long as they have a vibration suppression effect (including a sound absorption effect), and the material can be selected from a wide range, such as rubber-shaped elastic body, viscoelastic body, sponge, or plastic foaming body" (emphasis added). Nevertheless, Yamagiwa and JP 1390 do not specifically disclose the

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use of gum in the urethane foam. Scherzer, however, discloses a process for preparation of polyisocyanate polyaddition products, wherein the Crosslinked or gum-based particle is mixed with polyurethane foam (col 5 lines 40-43) for strengthening the polyurethane foam and injected into a hollow body.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination by including the crosslinked/gum based particle, as taught by Scherzer, since this is useful in the preparation of the polyurethane foams (col 5 lines 40-43).

Yamagiwa as modified by JP'390 and Scherzer discloses that the foam may be introduced at a threaded opening (col. 6, lines 32 and 63), but does not specifically disclose that the threaded opening is the opening by which the swing arm is mounted to the vehicle (claim 14).

However, since Yamagiwa discloses the introduction of the foam through a threaded opening, to select the mounting opening would have been an obvious design expedient. Yamagiwa also discloses that the use of random holes to fill the frame (col. 20, lines 55-60) is convenient. Thus, it would have been an obvious design expedient to introduce the foam through an opening at the end of the arm portion (claim 15). Moreover, it is noted that JP '390 inserts the damping material through an opening at the end of the arm portion as shown in fig. 1.

5. Claim 29 is finally rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Yamagiwa as modified by JP '390 and Scherzer as applied to claims 14, 15 and 28 above, and further in view of Lindewall.

Regarding the claimed density ranges, these broad ranges appear to be inherent in expanded foam of the type disclosed by Yamagiwa. In the supplemental response filed August 13, 2002, applicant provides abstracts of numerous Japanese Kokai Publications, and states that they are "representative of countless technical publications". These publications seem to establish that urethane foams generally have a density within the broad claimed ranges. Nevertheless, Yamagiwa as modified by JP '390 and Scherzer specifically discloses the claimed density. Lindewall, however, discloses a structural urethane foam having a density that falls within the claimed ranges (col. 3, lines 23 and 24). It would have been obvious to modify the combination by using a foam having the claimed density, as taught by Lindewall since commercially available structural foams commonly have such a density.

6. Claims 16 and 17 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Yamagiwa, JP'390 and Scherzer as applied to claims 14, 15 and 28 above, and further in view of the Japan 205119 reference (JP'119).

As set forth above, the combination teaches substantially all that is claimed, but does not teach the use of a mesh sheet (claim 16). JP'119, however, discloses a filling method of a foaming body including the use of a "net type bag body 16" (abstract translation) to retain the "styrene acrylonitrile" (abstract translation) foam as shown in fig. 1. It would have been obvious to use a mesh sheet, or "net type body bag" as taught by JP'119, to retain the material before it is foamed.

Response to Arguments

7. Applicant arguments filed 3/7/05 have been fully considered but they are not persuasive.

The following are the applicants' arguments listed in alphabetical order.

a. With regard to the 35 USC 112, 1st rejection, "applicant specification inherently describes the units for density because those skilled in the art would recognize the units on the basis of the disclosed ranges of Density for a Polyurethan Foam (e.g. g/cm³). Inherency, however, may not be established by probabilities or possibility. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." In re Robertson, supra, 169 F.3d 743, 745, 49 USPQ2D 1949, 1951.

b. With regard to the rejection of claims 14, 15, and 28 for obviousness using combination of Yamagiwa, JP'390, and Kennedy. Reference to Kennedy is improper because Kennedy never "mixes a urethane raw material with gum-based particle", thus, would not meet the claimed limitations. This argument is moot in view of newly applied reference (Scherzer).

c. With regard to claims 14 and 15, Yamagiwa lacks the teaching of raw material being injected into the hollow body frame portion (18I and 18R) via a threaded opening by which the swing arm is mounted or an opening at a free distal end of the arm portion.

However, since Yamagiwa discloses the introduction of the foam through a threaded opening, to select the mounting opening would have been an obvious design expedient. Yamagiwa also discloses that the use of random holes to fill the frame (col.

20, lines 55-60) is convenient. Thus, it would have been an obvious design expedient to introduce the foam through an opening at the end of the arm portion (claim 15).

Moreover, it is noted that JP '390 inserts the damping material through an opening at the end of the arm portion as shown in fig. 1.

d. With regard to rejection of claims 16 and 17 for obviousness using combination of Yamagiwa, JP'390, Kennedy, and JP'119, applicant is traversing the rejection base on the reason that "claims 16 and 17 depend from independent claim 28 which is considered patentable." This argument is moot in view of newly applied reference (Scherzer) to claims 28.

Conclusion

8. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Anthony H. Winner whose telephone number is (571) 272-6654. The examiner can normally be reached on Monday-Friday from 9:30 am to 6:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris, can be reached at (571) 272-6651. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

9. Information regarding the status of an application may be obtained from the Patent Application Information-Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

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more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-6584.



TONY WINNER
PATENT EXAMINER

May 29, 2005